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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,177	11/06/2001	Yutaka Imamura	81784.0245	9054
26021	7590	01/20/2006	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			AGUSTIN, PETER VINCENT	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/040,177	Applicant(s) IMAMURA ET AL.	
	Examiner P. Agustin	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1 & 3-8 are now pending.

***Reopening of Prosecution After Appeal Brief***

2. In view of the appeal brief filed on November 14, 2005, PROSECUTION IS HEREBY REOPENED. New ground of rejection are set forth below.

3. To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

4. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 & 3-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1 recites the limitation "the trial writing region disposed on the innermost peripheral side of said optical disk" on lines 21-22. There is insufficient antecedent basis for this limitation in the claim. The Examiner suggests replacing this limitation with --the trial writing region disposed on an inner peripheral side of said optical disk--, as described in claim 1, lines 12-13.

Claim 1 recites the limitation "the trial writing region disposed outside of the lead-out region" on lines 22-23. There is insufficient antecedent basis for this limitation in the claim. Note: claim 1, lines 12-14 describe writing test data onto (a) a trial writing region on an inner peripheral side of said optical disk and onto (b) an outer peripheral region outside a data writing region. Furthermore, claim 1, lines 15-16 describe reading test data from both (a) the trial writing region and (b) the outer peripheral region. However, there is no mention of a trial writing region disposed outside of the lead-out region, rendering the claim indefinite.

Claims 3-8 are dependent upon claim 1.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,404,712) in view of Miyata (US 6,052,347).

In regard to claim 1, Lee et al. disclose a laser output circuit (Figure 1, elements 60, 80, 81, 90 & 100) for an optical disk recording apparatus (Figure 1) in which an optical disk (10) is

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rotated at a constant angular speed and a signal is recorded while the disk is rotated, said laser output circuit comprising: a pickup control circuit (90) for controlling a pickup (11) position at which data is written onto the optical disk; a signal recording circuit (80, 81) for supplying to said pickup data to be written onto said optical disk; a signal level detection circuit (100) for detecting a signal level of the signal read by said pickup; and a laser output setting circuit (60 & 80; see column 2, lines 30-32) for setting a laser output for the writing of data onto the optical disk by said pickup, wherein test data is written onto a trial writing region on an inner peripheral side of said optical disk (column 1, line 65 thru column 2, line 3), the thus written test data is read from the disk, and said laser output is set in accordance with the signal levels of the test data read from the trial writing region; wherein said trial writing region (Figure 4: PCA), a buffer region (PMA), a lead-in region (Lead-in Area), a program region (Program Area), and a lead-out region (Lead-out Area) are disposed in order from the inner peripheral side of said optical disk toward the outer peripheral side, and said outer peripheral region is disposed outside the lead-out region; and wherein test data is written onto or read from the trial writing region disposed on the innermost peripheral side of said optical disk.

However, Lee et al. do not disclose: in regard to claim 1, that test data is written onto an outer peripheral region outside a data writing region.

Miyata discloses: in regard to claim 1, that test data is written onto an outer peripheral region (Figure 6, element 15) outside a data writing region (13). It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Miyata to the laser output circuit of Lee et al., the motivation being to determine optimum recording power for multiple areas of a disk (column 1, lines 15-21).

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9. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. & Miyata as applied to claim 1 above, and further in view of Den Boef (US 6,134,209).

For a description of Lee et al. & Miyata, see the rejection above. Furthermore, Miyata, and hence the obvious combination noted above, discloses: in regard to claim 3, that the laser output setting circuit sets the laser output based on an inner peripheral side laser output set according to the test data read from the trial writing region, an outer peripheral side laser output set according to the test data read from the outer peripheral region (see figure 13, steps 63 & 67); and in regard to claim 4, that said test data is written by altering the laser output within a predetermined range (column 6, lines 18-40).

However, Lee et al. & Miyata do not disclose: in regard to claim 3, setting the laser output based on an information on a recording property of the disk; in regard to claim 4, wherein said recording property is determined from the test data based on a relationship between the laser output and the signal level of the signal read by said pickup; and in regard to claim 5, and prerecorded data regarding a recording property of the disk is read from the disk, and said recording property is determined based on the read data.

Den Boef discloses: in regard to claim 3, setting a laser output based on information on a recording property of a disk (column 2, lines 35-48); in regard to claim 4, wherein said recording property is determined from test data based on a relationship between the laser output and the signal level of a signal read by a pickup (column 1, lines 56-59); and in regard to claim 5, wherein prerecorded data regarding a recording property of the disk is read from the disk, and said recording property is determined based on the read data (column 1, lines 56-59).

It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Den Boef to the circuit of Lee et al. & Miyata, the motivation being to provide a reliable method for setting the optimum write power depending on read signals from test patterns written on a medium and being less affected by noise (see column 1, lines 56-59).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. & Miyata as applied to claim 1 above, and further in view of Horiguchi (US 5,321,679).

For a description of Lee et al. & Miyata, see the rejection above. However, in regard to claim 6, Lee et al. & Miyata are silent to whether an inner peripheral side laser output set from the test data read from the trial writing region, and an outer peripheral side laser output set from the test data read from the outer peripheral region are stored in a memory.

Horiguchi discloses storing a laser output power in a memory (see abstract lines 8-11). It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Horiguchi to the circuit of Lee et al. & Miyata, the motivation being to obtain optimum operational conditions even when the optical pickup unit is exchanged (see abstract lines 4-6).

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., Miyata & Horiguchi as applied to claim 6 above, and further in view of Inaba (JP 58164059 A).

For a description of Lee, Miyata et al. & Horiguchi, see the rejection above. However, it is not disclosed that the inner peripheral side laser output set according to the test data read from the trial writing region and the outer peripheral side laser output set according to the test data read from the outer peripheral region are deleted from the memory when the disk is replaced.

Inaba discloses (see abstract) clearing the content of a memory when a disk is replaced (whenever a door is opened) in order to free unnecessary data from memory and to obtain sufficient memory space. It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Inaba to the circuit of Lee et al., Miyata & Horiguchi, the motivation being to free unnecessary data from memory and to obtain sufficient memory space.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., Miyata & Horiguchi as applied to claim 6 above, and further in view of Toyooka et al. (US 4,788,672).

For a description of Lee et al., Miyata & Horiguchi, see the rejection above. However, it is not disclosed that the inner peripheral side laser output set according to the test data read from the trial writing region and the outer peripheral side laser output set according to the test data read from the outer peripheral region are deleted from the memory when a predetermined time elapses after the end of a recording operation.

Toyooka et al. disclose (see abstract) erasing unnecessary data during a period of time when the optical disc memory is not accessed, in order to free unnecessary data from memory and to obtain sufficient memory space. It would have been obvious to one of ordinary skill in the art at the time of invention by the Applicant to have applied the teachings of Toyooka et al. to the circuit of Lee et al., Miyata & Horiguchi, the motivation being to free unnecessary data from memory and obtain sufficient memory space.

#### ***Response to Arguments***

13. Applicant's arguments with respect to claims 1 & 3-8 have been considered but are moot in view of the new ground(s) of rejection.



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In response to Applicant's arguments on page 5, last paragraph that the "rearrangement" rationale indicated by the Examiner would not have been obvious to one skilled in the art because normal optical disk recording apparatuses do not use any regions outside of the lead-out region because writing and reading is only performed in regions inside the lead-out region in accordance with optical disk standards, the Examiner withdraws this "rearrangement" rationale, rendering the arguments moot.

In response to Applicant's arguments on page 6, paragraph 2 that the Lee et al. reference does not disclose or suggest that the region outside of the lead-out region can be used, nor does Lee describe or suggest any such use, the Examiner has withdrawn the rejection of claim 1 over Miyata in view of Lee et al., rendering the arguments moot.

However, the new grounds of rejection noted above, i.e., Lee et al. in view of Miyata, renders these features obvious.

### *Conclusion*


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

P. Agustin  
Art Unit 2652

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER